

Question 1

Which of the following is NOT required for precipitation?

Answer (d) southerly winds

Condensation nuclei, a source of lift, and moisture are all needed for precipitation to occur. The direction of the wind is irrelevant.

Question 2

Sleet and freezing rain are caused by a cold layer, with temperatures at or below freezing, of air aloft (FALSE/TRUE)?

Answer (b) False

Freezing rain and sleet occur when the SURFACE temperatures are at or below freezing. The temperature aloft must be above freezing as well.

Question 3

Which one of these clouds can produce moderate to heavy precipitation?

Answer (b) Cumulonimbus

Cumulonimbus clouds, with their strong updrafts, can support a tremendous amount of water which must fall to the earth at some point. Nearly all flash flooding occurs from heavy downpours produced by these clouds.

Question 4

A mid-level cloud deck that has a heap-like appearance would be called?

Answer (b) altocumulus

If you see altocumulus clouds, it can mean that a cold front is coming. In summer, altocumulus clouds can also mean that thunderstorms could form during the afternoon.

Question 5

A high level cloud that forms in a layer would be called?

Answer (b) Cirrostratus

Cirrostratus clouds invading the sky and thickening from the west can mean rain or snow within twelve to twenty-four hours.

Question 6

Sleet will typically occur to the north of a warm front.

Answer (a) True

For sleet to form, there needs to be air that is above freezing over an area that has temperatures below freezing. This will allow any liquid precipitation falling into the colder air to freeze before it reaches the ground. These areas are typically north of warm fronts.

Question 7

An east wind means that the air is moving from west to east.

Answer (b) False

The direction the wind is blowing is the direction the wind is coming FROM. An east wind means wind is coming from the east to the west.

Question 8

A west wind means that the air is moving from west to east (TRUE/ FALSE).

Answer (a) True

The direction the wind is blowing is the direction the wind is coming FROM. A west wind means wind is coming from the west to the east.

Question 9

The force that results from the rotation of the earth is called the _____ force.

Answer (b) coriolis

Because of the earth's rotation, wind turns to the right in the Northern Hemisphere (left in the Southern Hemisphere) because of the coriolis force.

Question 10

The force that results from roughness of the earth's surface is called the _____ force.

Answer (b) frictional

Frictional force is what causes the wind to decrease in speed. This is most noticeable when hurricanes make landfall.

Question 11

The force that results from equalizing pressure differences is called the _____ force.

Answer (a) pressure gradient

The stronger the difference in pressure between two weather systems, the stronger the wind flow between the two systems becomes.

Question 12

Air (diverges, converges) near high pressure and (diverges, converges) near low pressure.

Answer (a) diverges, converges

There are three forces that cause wind to move the way it does. The forces are Pressure gradient force, Coriolis force, and Friction. The last one, friction, is the final component to determining the flow of wind. The surface of the earth is rough and it not only slows the wind down but it also causes the diverging winds from highs and converging winds near lows.